# Strategic Planning and Evaluation of a Collaboration between Duke University Medical Center Department of Psychiatry and Lincoln Community Health Center in Developing a Mental Health Component to an Existing Health Care for the Homeless Clinic

**By**

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**Strategic Planning and Evaluation of a Collaboration between Duke University Medical Center Department of Psychiatry and Lincoln Community Health Center in Developing a Mental Health Component to an Existing Health Care for the Homeless Clinic**

**Abstract:** Mental illness affects approximately 16-25% of the adult US homeless population(1). A 2008 point-in-time survey in North Carolina identified 12,371 homeless individuals, amongst whom 16% reported having a serious mental illness, 34% a substance use disorder, and approximately 6% reported having been recently released from a mental health hospital or drug treatment program (2). Severe mental illness affects one's ability to obtain basic needs, such as food, shelter and safety (3). Not having appropriate shelter can lead to further destabilization of an existing mental illness (4, 5). Despite research that has shown the benefits of intensive community-based mental health services (6), access issues to such services continue to contribute to the maintenance of the mentally ill on the streets or in jails and prisons (7-9)

This program plan and evaluation will examine one possibility for improved access through the development of a mental health clinic, based at an existing Durham homeless shelter medical clinic and created through the collaborative efforts of Duke University Medical Center (DUMC) Department of Psychiatry and Lincoln Community Health Center.

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## I. Introduction

Between 16-25% of the adult US homeless population has been diagnosed with a mental illness (1). Of the 12, 371 homeless individuals identified in a 2008 point-in-time survey in North Carolina, 1,961 (16%) identified as having a serious mental illness, 4,206 (34%) identified as having a substance use disorder, and 6% had been released from a mental health hospital or drug treatment program in the 30 days prior to becoming homeless (2). Within the homeless population, those who suffer from substance abuse and severe mental illness often are further marked by extreme poverty; underutilization of public entitlements; isolation from family, friends, and other support networks; frequent contact with correctional agencies; and poor physical health (10, 11). Homelessness significantly affects quality-of-life for those with mental illness (4, 5). As well, those with severe mental illness are at increased risk for homelessness. In one study which tracked those with serious mental illnesses, including schizophrenia, bipolar disorder, and major depression, over one year, the prevalence rate of homelessness was 15% (12).

The need for assistance for those with severe mental illness and who are also homeless is great. Yet the limitations of community outpatient mental health services and community-based programs continue to contribute to the maintenance of the mentally ill

on the streets or in jails and prisons (7-9). Care is often fragmented with poor coordination between providers leading to persons falling through the gaps and into emergency rooms, psychiatric institutions and correctional facilities (13).

This paper will examine one possible step towards closing the treatment gap: by meeting homeless clients where they are—on the streets and at the shelter. The details of developing and evaluating a mental health clinic, based at an existing Durham homeless shelter medical clinic, will be explored.

## II. Literature Review

Over the past several decades increasing research of the US homeless population has led to the development of multiple approaches towards best maintaining stable housing for those with chronic mental illness and ensuring continued and appropriate mental and physical health care. This section touches on several theoretical approaches towards working with the homeless population living with chronic mental illness.

More specifically this literature review seeks to understand which programmatic elements best address the barriers to accessing services for the homeless adult, living with a mental illness, during transition from psychiatric hospitalization to community-level care.

### Methods

To examine the differences among programming available to homeless adults, a PubMed literature search was conducted, using the terms “mental illness” and “homeless.” This

initial search yielded 2479 papers. Limiting these papers to English language, human research subjects, adult subjects older than 19, clinical trials/randomized controlled trials/reviews/meta-analyses and papers published within the past 10 years led to a group of 101 papers. From these papers, abstracts were analyzed to look for papers specific to understanding how to obtain best outcomes for those previously homeless and also transitioning from mental health hospitalizations to community living. While many papers consider the question of those who are homeless with severe mental illness and how to increase access to social and psychiatric services, few deal specifically with this transition period from institution back to community. Three papers specifically addressed this topic. Of note, these did not focus on same outcomes with some only using housing and others including variations of psychiatric symptom evaluations.

Papers were excluded if they worked exclusively with substance abuse issues, precluding other forms of mental illness. As well, multiple papers have been published examining issues of HIV-related care among the homeless population. These were also excluded, given their specificity among a particular group of homeless adults. Other specific population papers were also excluded, such as those dealing only with women, children, or the veteran population for which particular governmental programs are being evaluated.

**Research Challenges**

Of note, one of the difficulties in research among those who are homeless is the transience of the population. Not only is follow-up over time difficult, but as well, the

population is always shifting making an understanding of current demographics difficult. Even basic point-in-time observational studies become obsolete within short periods of time. As well, multiple definitions of homelessness---those living on streets unsheltered versus those in unstable transitional or shelter housing versus those recently transitioned from street living—exist and differ between research projects. When considering "mental illness," definitions also vary—for instance, at times substance abuse is included, at other times excluded. In some projects, researchers do extensive chart reviews to obtain previous documentation of a mental disorder; other projects depend on clinical evaluations done within the parameters of the research project to determine diagnosis; still others simply rely on self-report.

Therefore, any inference derived from these studies needs to be understood within the context of the specific target population definitions. A recently developed report by the National Alliance to End Homelessness uses data from the US Department of Housing and Urban Development (HUD)'s annual homeless census. These annual point-in-time estimates use Continuums of Care Centers (CoCs), which coordinate funding and services for the homeless locally. Yet collection methods are not uniform between CoCs due to individual geographic and demographic differences and even change annually, making the data interpretable only by estimates (14).

Part of this difficulty arises from difference in internal versus external reporting needs and requirements. Frequently funders require different performance measures or force groups to use particular data monitoring systems (15). Primary outcomes measurements

often are percentage retained in housing rather than level of overall functioning. As well, a single homeless individual may use multiple services, which can be extremely difficult to monitor and coordinate. The Colorado Coalition for the Homeless (CCH) examined the diversity of methodologies employed in research among homeless populations and the difficulty in performing multi-domain assessments by developing and validating an outcome scale to assessment and service planning needs (16). The National Health Care for the Homeless Council continues to coordinate efforts to improve evaluation and monitoring capacity at least among federal Health Care for the Homeless (HCH) grantees, yet these efforts are still in their infancy.

Housing is often the central outcome examined in many studies involving the homeless, who also have a severe and persistent mental illness (SPMI), yet an understanding of how housing affects quality of life is still being developed. One group in Calgary, Canada, Kyle et al, reviewed the effects of housing circumstances on health, quality-of-life, and healthcare use for those with severe mental illnesses in order to understand if this was a valid endpoint outcome. Out of the twenty-nine studies that met criteria (of note, these did not have to be randomized controlled studies or have matched controls), fourteen also reported healthcare utilization, twelve examined mental status, and nine reported quality-of-life. Overall, these study indicated good evidence for housing, as a moderating factor towards improvement of health and quality of life (17). Yet despite this evidence and the relative ease of measuring housing as an outcome, researchers must recognize its limitations, including variability of housing quality. Independent housing, in and of itself, does not necessarily lead to an better, healthier life.

**Evidence-Based Programming**

Evidence remains limited regarding behavioral health care for the homeless—both in the number of studies published and also in the constraints placed on researchers due to challenges inherent in studying this population. In an effort to specifically understand the barriers to continued access to care after psychiatric hospitalization, this literature review began with a PubMed search that revealed only a few papers which had control groups or were randomized controlled trials (RCTs) addressing this particular issue. This paper examines programs that can be implemented to assist with access to psychiatric and social services during the specific period of transition from institution to community living.

One paper by Forchuk et al. describes a small sample of fourteen persons at-risk of being discharged from a psychiatric facility to "no fixed address" who were randomized to either immediate assistance with housing or usual care, which included discharge to shelters or the street. After six months all those within the intervention group maintained housing; all but one from the control group remained homeless (18). Of note, no psychometric measurements were obtained from the study group, which was also small in sample size.

Another paper developed by Columbia's Center for Homelessness Prevention Studies centered around a new model—Critical Time Intervention (CTI)—for preventing homelessness in high-risk groups with a yet unpublished study specifically looking at

those moving from psychiatric hospitals to community care. CTI arose out of observations from New York shelters during 1990s when housing options expanded significantly allowing for placement of homeless persons into independent living situations, that many were unable to maintain housing past 18 months. The transition period in which a person was required to maneuver through complicated systems of care, away from known support systems, often proved too complex(19).

CTI borrows from success assertive community treatment teams have had in allowing clients to develop skills while living in the community. Yet the model differs in its time-limited structure. CTI is a nine-month operative, allowing continuity of care from institutions (shelters, psychiatric facilities, corrective facilities) yet ultimately yielding full care to community providers through three phases: transition (months 1-3), try-out (months 4-6), and transfer of care (months 7-9). In an NIMH-funded randomized trial, 96 men were followed from 1991-1993 with the primary outcome of retaining housing. Results demonstrated marked difference between the CTI and as usual care groups with only 10% of the CTI group experiencing extended homelessness (>54 nights) vs 40% of the usual treatment group over the 18-month follow-up period. Psychiatric symptom measurement demonstrated a statistically different decrease in negative symptoms at 6 months using the Positive and Negative Symptoms Scale although no difference in positive symptoms or general psychopathology (20). Costs for CTI versus usual care are similar with a decreased mean number of homeless nights for CTI participants, indicating likely cost-effectiveness in comparison to usual care (19, 21).

A follow-up randomized trial by Herman et al. specifically looking at 150 persons on discharge from two New York state-operated psychiatric hospitals was to be completed in September 2007, with results still unpublished(19).

One paper by Bradford et al. did not deal specifically with the transition between psychiatric facilities and community level care, but did assess a similar shelter-based program to that being planned, designed to improve access to community psychiatric services for those with severe and persistent mental illness. A shelter-based intervention, meant to act as a bridge into community mental health care, was designed to include intensive outreach by a psychiatric social worker and weekly psychiatric visits. 102 subjects were enrolled. The primary outcome was making an initial appointment at a community mental health center. Secondary outcome measures were continued attendance at mental health appointments, participation in a substance abuse program, housing and employment status. The intervention was successful in increasing participation in at least an initial appointment with a community mental health care provider and in attendance at a substance abuse program. However, there was no significant difference with other outcomes including housing(22).

**Current Models of Care for SPMI Homeless Population**

1) Continuum of Care

Since 1994 the US Department of Housing and Urban Development has been working to coordinate care for the homeless in a strategic fashion. This model arose from that effort to assist communities in the creation of long-term comprehensive solutions to

homelessness. The fundamental steps of a Continuum of Care system, moving towards independent living, include 1) initial outreach, intake and assessment to identify needs and link to appropriate services; 2) emergency shelter; 3) transitional housing with supportive services in order to develop skills necessary for permanent housing; and 4) achievement of permanent housing (23). This model assumes that necessary skills for living must be obtained through stepwise learning and that ability to maintain housing depends on sobriety and engagement in psychiatric treatment.

2) Housing First

In the 1990s a NYC-based group Pathways to Housing, Inc. initiated this consumer-driven program under the belief that housing should not be dependent on the choices any person makes regarding substance abuse or mental health treatment, but should be made available without restriction. Housing First works by placing the homeless into independent housing from the start without moving through the traditional stages of housing support. The only requirements are that 1) consumers pay 30% of income towards rent usually assisted by a money management program and 2) agree to have staff visit their homes two to three times per month. Otherwise, the consumer chooses all assistance services (24).

Greenwood et al. explore differences between the consumer-driven option of Housing First versus usual Continuum of Care practices, which requires psychiatric treatment and sobriety prior to achieving permanent housing status. Based on their study of 197 homeless and mentally ill adults, there is a direct relationship between Housing First and

decreased homelessness rates, as well as increased perceived choice. This perceived choice, partially mediated by mastery, is also linked to a decrease in psychiatric symptoms, giving support to the idea of consumer-driven care(24).

Currently HUD, SAMHSA, and the US Interagency Council on Homelessness support this model to address chronic homelessness (3).

3) Integrated Services

Exemplified by assertive community treatment teams (ACTT), this third model often works in coordination with either Continuum of Care or Housing First and includes outreach, integrated case management, safe havens, income support/benefits, vocational training, supported employment, psychiatric treatment and medical care (6).

The use of comprehensive services through assertive community treatment teams (ACTT) have been shown to effectively stabilize the chronically mentally ill within the community (6, 25-27). In 2007 Coldwell et al from Dartmouth performed a meta-analysis looking at the effectiveness of assertive community treatment (ACT) for homeless populations with severe mental illness. Within both observational and randomized control trials which met inclusion criteria, there was a significant reduction in both homelessness and psychiatric symptoms. In randomized trials, there was a 37% (95% CI=18%-55%) greater reduction in homelessness and a 26% (95% CI=7%-44%) greater improvement in psychiatric symptom severity compared with standard case management treatments (6).

Two federal funding programs, which are managed through SAMHSA, Projects for Assistance in Transition from Homelessness (PATH) and Grants for the Benefit of Homeless Individuals/Treatment for Homeless Persons (GBHI/THP), support community-based outreach and mental health support services to the homeless. Within North Carolina there are several PATH program grantees, mainly based out of the regionally based local management entities (LME), which serve as hubs for the mentally ill to connect with appropriate providers (3) .

**Discussion**

Most research, which is focused on improving psychiatric access for homeless persons with severe psychiatric illness, examines programs designed for those not yet in contact with the mental health system or in limited contact. The goal within this population is identification. Who are those suffering from mental illness within the homeless population? And how does one reach out to provide appropriate services?

One difference in looking at those in transition from psychiatric facilities to community level care is that the moment of opportunity is already defined, the person has sought help or been brought into the mental health system by others. Given that the greatest barrier within homeless outreach programs often is making an initial contact(28), the assurance of an ongoing treatment plan is necessary when a person finally does come into the mental health system. Resources are available during hospitalization to assist with developing an appropriate plan to address mental health and housing needs. Yet often the

community resources are not readily available. The scarcity means an appointment may be set for weeks after discharge, at a clinic located miles away from the patient's shelter.

Few studies look at this particular period of transition and even within those studies primary outcome usually is housing, not improvement in psychiatric symptoms or quality-of-life. Evidence shows that housing for even the severely mentally ill produces significant added benefit to mental status, quality-of-life and healthcare utilization (17). But housing is not precisely the desired endpoint. Although an easy measurement piece, researchers must also remember that housing is only a moderating factor towards functionality. Housing and even appropriate mental health care are only steps in the push towards improving quality-of-life for this population.

This literature review examined the barriers to accessing services for the homeless adult, living with a mental illness, specifically during transition from psychiatric hospitalization to community-level care. While the mental health homeless clinic currently in development will provide care to those recently discharged from psychiatric hospitals to a local homeless shelter, the clinic will be open to any homeless client referred with the goal of ensuring appropriate continuity in mental health treatment.

## III. Program Plan

### Local Framework

Addressing the needs of the homeless has become a policy priority for the North Carolina Department of Health and Human Resources, who have set up the Interagency Council

for Coordinating Homeless Programs (ICCHP). Currently twelve North Carolina communities, including Durham, have instituted 10-year plans to end homelessness (2). Several different initiatives have been launched to help the homeless with mental illness access services. The Homeless Mental Health Housing Initiative, funded through the Mental Health Trust Fund, uses support teams who move through hospitals, treatment programs, jails/prisons to assist those with severe and persistent mental illness to maintain or locate appropriate housing during times of transition back to the community until a community-based enhanced service provider steps in (2). The SOAR Initiative (SSI/SSDI Outreach, Access, and Recovery) is a federally-funded program working to improve rates of successful SSI and SSDI applications, which can be enhanced through having a complete mental health assessment (2).

In January 2009, the staff of the Durham Affordable Housing Coalition and Housing for New Hope, in conjunction with the U.S. Census Bureau, counted all persons who are homeless on a given day. Per this survey, 502 people including children were sheltered in local service agencies, and thirty-three people residing on the streets. 129 had been transitioned to permanent supportive housing. Of those within transitional housing, such as a shelter, or living on the street, 104 were diagnosed with a serious mental illness and 353 had a substance use disorder. Ninety-four had been released from the behavioral health system in the past thirty days prior to becoming homeless (29).

Within Durham, as part of its Health Care for the Homeless Program, Lincoln Community Health Center already provides medical services to Durham's homeless

population at a clinic situated beside a local homeless shelter. Staff includes a nurse, physician assistant and social worker. The clinic is open 3-4 days/week with afternoon and evening hours. From January to November 2006 the clinic had over 3,000 visits (30). The clinic provides free medical care and basic screening for mental health and substance abuse treatment with referral to local agencies. On-site staff provide substance abuse counseling. However, no psychiatrist is available, and therefore, for those with severe and persistent mental illness, access to necessary medications is limited. Funding to staff psychiatric residents at the clinic is not currently available. Grant funding currently offers compensation for Duke psychiatric residents to work at the main Lincoln Community Health Center, but does not extend to Lincoln-associated clinics, located off-site. However, several willing psychiatric residents and staff members are volunteering time, allowing the opportunity to pilot-test a mental health clinic for the homeless at Urban Ministries homeless shelter. One necessary long-term goal would be to obtain permanent funding through government or private grants to maintain the clinic.

Lincoln Center's Health Care for the Homeless Program maintains strong connections with The Durham Center, a management entity charged with assisting Durham County citizens access needed mental health, developmental disabilities and substance abuse services. But the Durham Center does not provide direct services instead contracting with other private providers. Without an on-site mental health provider at the homeless shelter, the delay between referral and receipt of services is often too long, resulting in mental destabilization during the wait for care and the need for additional, expensive emergency mental health care. Adding a mental health provider position to the Health Care for the

Homeless Program would assist in bridging this gap to serve those without stable housing diagnosed with a mental illness.

**Program Theory**

During psychiatric residency, interactions with the homeless population are frequent and often occur in situations in which the residents are fatigued and often overwhelmed. At such times of intense stress, the risk for defaulting to ingrained stereotypes is high (31). How then does a residency program assist in developing awareness of a resident's own prejudices and support interactions that promote breakdown of such biases? The development of a program plan for psychiatric resident volunteer at a homeless clinic was based not only on past research indicating that even brief exposure to indigent populations in volunteer settings increases the likelihood of continued voluntary work(32), but also clinic social psychology theory, exploring the development of stereotypes and the possibilities for combating discriminatory behavior.

Social categorization continuously occurs within the mind. As one passes individuals on the streets or walks into a room of strangers, a neurological process basic to human survival--that allows one to avoid danger or make alliances with others that will be successful—immediately occurs. Fiske et al developed the Stereotype Content Model to predict how components of perceived warmth ("friend or foe") and competence (i.e. one's ability to act on intentions) interact to create distinctive affective reactions towards an individual—pity, envy, admiration or contempt (33). In earlier studies using fMRI, researchers were able to pinpoint neural activity elicited when one experiences emotions

in relation to human interactions. Social emotions correlate with brain activity mainly in the medial pre-frontal cortex (mPFC) (34, 35). However, of note, when Fiske et al elicited contempt/disgust using images of known outgroups, such as drug addicts or homeless individuals, (i.e. those groups that elicited both low warmth and competence scores on the Stereotype Content Model), the mPFC had less activation (36). At a neural level, the brain was categorizing those from outgroups as more like objects, dehumanizing them. But by simply asking participants to envision food preferences for these outgroup members, more social emotion, more humanity was conferred upon these members and increased mPFC activity was noted (37).

Many psychiatric residents may have, yet not consciously be aware of, significant biases towards the homeless population. Within the stressful environments in which psychiatric residents first encounter those who are homeless, the risk for continued objectification and strengthening of prejudice and possible discriminatory behavior is significant. Understanding, then, that even a few hours spent in service with a population perceived to be different from oneself can uproot a bias, this project seeks simply to create a safe environment for healthcare providers to voluntarily work with those who are homeless.

Safety remains important to those who are homeless as well. Within a population that has often experienced significant coercion or lack of choice, the ability to safely choose what to reveal to their providers and what decisions to make regarding their health care remain key to successful interactions. Greenwood et al. found that increased choice even leads in and of itself to a decrease in psychiatric symptoms (24). The Health Belief Model

(HBM), which focuses on developing a thorough grasp of the client's perceptions and beliefs regarding his/her illness, will be integrated into both planning and evaluation, as means of creating an open environment in which providers and clients learn one from the other.

**Goals/Objectives**

**GOAL:** To improve access and referral to mental health care services among the homeless population in Durham, North Carolina with severe and persistent mental illness.

**OBJECTIVES:**
**SHORT (1-3yrs)**

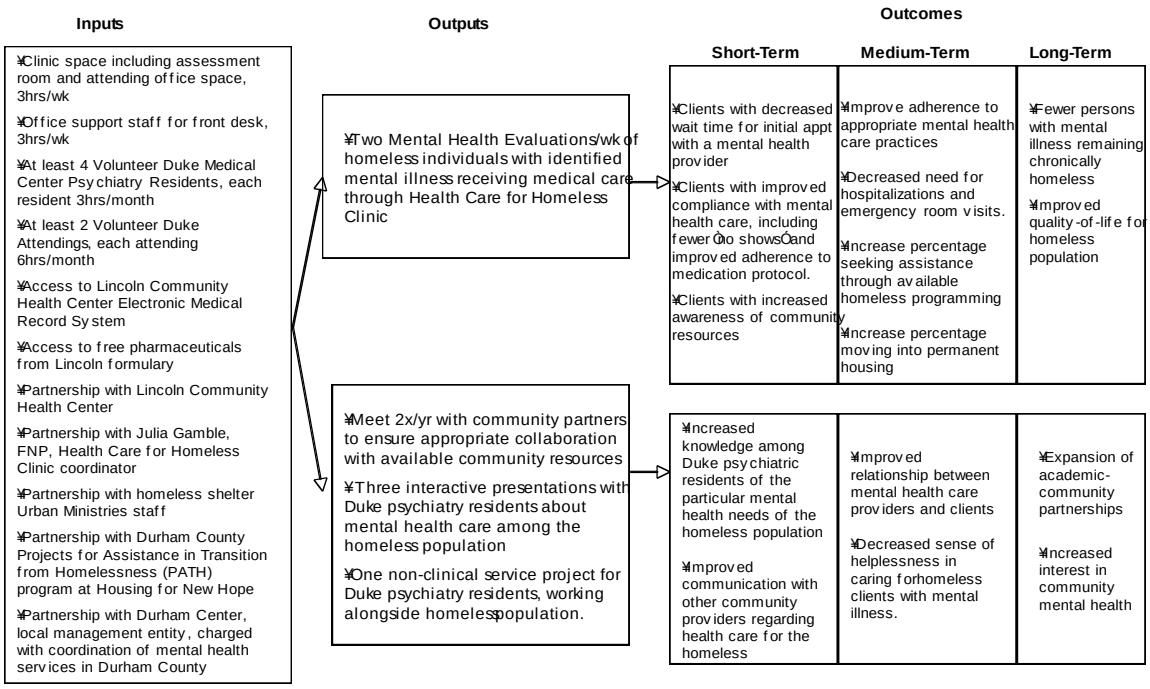
- Care Coordinator will recruit 4-6 psychiatric residents to volunteer for at least onc two-hour clinic by June 2009.
- Care Coordinator will recruit 2-3 attending physicians for on-site supervision of psychiatric residents for each clinic by June 2009.
- Current primary supervising will assist in obtaining elective status for clinic rotation in order to provide credit to those residents and attending physicians working in the clinic by July 2009.
- Clinic will hold 16 clinical sessions by the end of 2010.
- Clinic will complete psychiatric evaluations of 20 persons with mental illness among the Durham homeless population by end of 2010.
- Education coordinator will organize at least three academic activities for Duke psychiatry residents about mental health care for the homeless population, highlighting community support services in Durham for the homeless during the 2009-2010 academic year.

- Clients evaluated at the clinic will have an increased rate of attendance to initial community mental health follow-up appointments by end of 2011.
- Clients evaluated at the clinic will increase use of other community resources to improve well-being by end of 2011.
- By end of 2009-2010 academic year, Duke psychiatric residents will have an increased knowledge regarding community resources for the homeless population in Durham, and an awareness of evidence-based interventions proven to enhance psychiatric outcomes.

**LONG (3-6yrs)**

- 50% of the clients evaluated in the clinic will be in mental health treatment with a long-term provider by 2015.
- Clients will decrease emergency room visits for mental health services by 2012.
- 60% of Duke psychiatric residents will report feeling decreased helplessness or increased skill in interactions with homeless population by 2012.
- By 2012 residents will institute annual psychoeducational outreach program for organizations involved in the Durham 10-Year Plan to End Homelessness focused on sharing interdisciplinary perspectives about identifying and working with the citizens with severe and persistent mentally illness.

## Figure 1: Logic Table




## Implementation Plan

In January 2009 Duke University Medical Center psychiatry resident volunteers began working 2-hour sessions 1-2x/month at the Lincoln Health Care for the Homeless Clinic, under the supervision of an on-site volunteer attending psychiatrist. For each mental health clinic session, two clients, identified by the clinic manager Julie Gamble, are scheduled for a 45-minute psychiatric evaluation. All records are maintained within the Lincoln Community Health Center's existing electronic medical record (EMR). Prescriptions, as needed, are printed out from the EMR and picked up for free from the clinic during daytime operating hours. Clients are referred to additional community

mental health resources as appropriate.

Based on the Health Belief Model (HBM) with an emphasis on consumer choice and perception of illness, all evaluations are conducted with an eye towards incurring the least amount of coercion, and in attempting to fully develop an understanding of the client's needs and beliefs regarding his/her mental illness and interactions with the medical system.

**Staff:**

All residents and attending physicians must receive clinical privileges to practice at the Lincoln Community Health Center Healthcare for the Homeless Clinic (HCH). Those working at HCH must agree to adhere to Lincoln Community Health Center clinic policies and submit signed agreements. Copies of all policies are distributed to all staff.

Dr. Susco from Lincoln Community Health will supervise the initiative. Julia Gamble, MPH, FNP, Manager of the Health Care for the Homeless Program, will coordinate the clinic activities. Dr. Eric Christopher and Dr. Marvin Swartz will serve as liaisons between Health Care for the Homeless and Duke University Medical Center Department of Psychiatry. Volunteer on-site supervising attending physicians from Duke will rotate through the clinic at least once each month.

Monica Slubicki, Duke psychiatry resident, will coordinate resident volunteers in the capacity of "Care Coordinator."

Maria Almond, Duke psychiatry resident, will organize educational programming for psychiatry residents throughout the 2009-2010 academic year, consisting of at least three presentations to the psychiatry residents and one non-academic service activity alongside those who are homeless.

## IV. Evaluation Plan

### Evaluation Design

Multiple methodological challenges exist to designing an evaluation which would appropriately address the multi-faceted nature of difficulties encountered by the homeless population including not only mental health symptoms, but also other psychosocial factors including physical, social, environmental, legal, financial, which also affect this population's functioning. Low literacy rates among the homeless population make traditional self-report difficult. The migratory nature of the homelessness, the need to provide for basic needs above participating in research, and often an inherent distrust of organized systems, make it necessary to conduct evaluations among this population in a brief, open-ended or non-threatening, and flexible manner. Also given the differences among the homeless themselves regarding definitions of successful functioning, the evaluation will want to allow for expanded, open-ended discussion(16). Therefore, the evaluation, observational in design, should encompass both brief, directed quantitative measures, but also allow for more open-ended qualitative responses over which the respondent may have more control. Given the recent research indicating that increased choice or perceived control over life decisions with in the homeless population leads to

improved psychiatric symptoms, the evaluation process should reflect as much as possible the possibility of choice (24).

**Methods**

Although use of a validated instrument with this population such as the Colorado Coalition for the Homeless Consumer Outcome Scale would be helpful in making comparisons across homeless populations, at this time financial and other resource constraints make it necessary to begin with a briefer, less intensive evaluation (16). Baseline demographics along with psychiatric diagnoses and history will be obtained from a chart review. The Lincoln Community Health Care Clinic and the Durham Center database can then be cross-referenced to provide information regarding any health status improvements or deteriorations, length to follow-up, and drop-outs from treatment. Open-ended interviews with both clients using the mental health services of the clinic and those who have chosen not to engage in the clinic but have a prior psychiatric diagnosis will be done. Based on the Health Belief Model (HBM) and the emphasis on personal perception, data will be acquired regarding their perceptions of the etiology of their mental illness, perceive risks and severity and their own thoughts regarding challenges to improving their mental health. Focus groups will not be done among the homeless clientele. Although efficient, in this instance, ethically maintaining an environment of beneficience, including an acknowledged sensitivity to individual mental health histories, makes the short-term nature of focus groups difficult for this evaluation.

Open-ended interviews with psychiatric residents, attendings, and Lincoln Community Health Care Staff regarding whether clinic goals had been met and any changes in perception of homeless clients over time of working in clinic also will be discussed. Focus groups will also be held with all residents at the beginning of the academic year and one year later after a series of different activities both academic and clinical to gain increased exposure and experience in working with the homeless population.

**Dissemination Plan**

The results of the ensuing evaluation will be shared via a comprehensive report with all invested partnerships in this collaborative effort to launch a mental health component for an existing homeless shelter clinic, including Lincoln Community Health Care Center, the PATH program under Housing for New Hope, Durham Center Access, 10yr Plan to End Homelessness, and Duke University Medical Center Department of Psychiatry.

As well, results will be submitted for possible poster presentation at local and national psychiatric conferences—given possible future implications for public-academic partnerships at the residency level. Presentations on the results will also be delivered within the Duke Department of Psychiatry.

**Evaluation Planning Tables**

**Short-Term Process Objective #1**: By project month 6, Clinic Coordinator will have recruited a stable pool of 2-3 attendings and 4-6 psychiatric residents, who have

completed paperwork required to practice medicine under the Lincoln Community Healthcare for the Homeless clinic.

| Evaluation question | Participant | Evaluation Method |
|---|---|---|
| Were 2-3 attendings and 4-6 psychiatric residents successfully recruited? If not, why? | Clinic Coordinator | Open-Ended Interview |
| How might recruitment efforts be improved? | Clinic Coordinator<br>Attendings and residents | Open-Ended Interview;<br>Self-Report Questionnaire; Focus Group |
| What are reasons resident or attending chose to volunteer with the homeless shelter clinic? | Attendings and residents | Self-Report Questionnaire; Focus Group |
| If the residency recognized the clinic time as credit for community psychiatry, would the resident be willing to serve more hours? | Attendings and residents | Self-Report Questionnaire; Focus Group |
| What are some challenges that may limit a resident's time working at the homeless shelter clinic? | Attendings and residents | Self-Report Questionnaire; Focus Group |
| Have all clinical participants completed the requisite paperwork? If not, why? | Clinic Coordinator<br>Attendings and residents | Open-Ended Interview;<br>Self-Report Questionnaire; Focus Group |

**Short-Term Process Objective #2:** By project month 6, will have coordinated procedure for training new residents to work at clinic, including effectively using electronic medical record.

| Evaluation question | Participant | Evaluation Method |
|---|---|---|
| Have all residents and attendings been trained to use electronic medical record system? If not, | Attendings and Residents | Self-Report Questionnaire; Focus Group |

| | | |
|---|---|---|
| why? | | |
| Were all new residents and attendings trained regarding clinic procedures? If not, why? | Attendings and Residents | Self-Report Questionnaire; Focus Group |
| Are all residents and attendings aware of emergency procedures for this clinic (i.e. fires, medical/psychiatric emergency)? | Attendings and Residents | Self-Report Questionnaire; Focus Group |
| Was there anything that needed clarification after the first shift working? | Attendings and Residents | Self-Report Questionnaire; Focus Group |
| Was check-out with supervising attending efficient and useful? | Attendings and Residents | Self-Report Questionnaire; Focus Group |
| Are there any clinic procedures that the clinician would consider counter-therapeutic or about which there were safety concerns? | Attendings and Residents | Self-Report Questionnaire; Focus Group |
| How can clinic procedures be improved? | Attendings and Residents | Self-Report Questionnaire; Focus Group |

**Short-Term Process Objective #3:** By project month 6, will have held eight 2-hour mental health clinic sessions and will have evaluated at least 6 patients.

| Evaluation question | Participant | Evaluation Method |
|---|---|---|
| How many clinic sessions have been held? | Clinic Coordinator | Open-ended interview |
| What are the limitations to instituting regular clinic hours? | Clinic Coordinator | Open-ended interview |
| Has clinic often ended early or late? | Clinic Coordinator | Open-ended interview |
| How many patients have been evaluated? | Clinic Coordinator | Open-ended interview |
| How many “no show” appointments have there been? | Clinic Coordinator | Open-ended interview |
| What are the challenges some homeless persons may have to | Clinic Coordinator; Residents and | Open-ended interview; Focus Group |

| | | |
|---|---|---|
| walking into the clinic? | Attendings | |
| What is the range of diagnoses seen in the clinic setting? | Clinic Coordinator | Open-ended interview |
| How many clients have been discharged from a psychiatric hospital within the past 30 days? | Clinic Coordinator | Open-ended interview |
| Have any patients needed emergent care either medically or psychiatrically? | Clinic Coordinator | Open-ended interview |

**Short-Term Process Objective #4:** By project month 8 the education coordinator will have given three presentations to Duke psychiatry residents about mental health care for the homeless population and introduced incoming residents to community support services in Durham.

| Evaluation question | Participant | Evaluation Method |
|---|---|---|
| What were the difficulties in scheduling additional lectures into resident academics? | Education Coordinator | Open-ended interview |
| What were the challenges in recruiting outside speakers? | Education Coordinator | Open-ended interview |
| What did residents find most helpful from the presentations? Least helpful? | Education Coordinator, Residents | Open-ended interview, self-report questionnaire |
| What additional topics would residents like to see addressed? | Education Coordinator, Residents | Open-ended interview, self-report questionnaire |
| Did the presentations make residents more or less willing to work with this population? | Education Coordinator, Residents | Open-ended interview, self-report questionnaire |

**Short-Term Participant Objective #1:** By project month 8, the rate among clients evaluated at the clinic of "showing" to initial community mental health follow-up appointments will be improved.

| Evaluation question | Participant | Evaluation Method |
|---|---|---|
| What is the "no show" rate for initial community mental health appointments among those NOT seen previously at the shelter clinic? | Clinic coordinator, education coordinator | Chart Review |
| What is the "no show" rate for initial community mental health appointments of shelter clients? | Clinic coordinator, education coordinator | Chart Review |
| What is the "no show" rate for initial community mental health appointments for those NOT seen at the shelter clinic and also discharged from psychiatric hospitalization in the past 30 days? | Clinic coordinator, education coordinator | Chart Review |
| What is the "no show" rate for initial community mental health appointments for those seen at the shelter clinic and also discharged from psychiatric hospitalization in the past 30 days? | Clinic coordinator, education coordinator | Chart Review |
| What are the challenges those with mental illness who are homeless have to making scheduled appointments? | Attendings, residents<br><br>Homeless community members | Self-Report Questionnaire; Focus Group<br><br>Open-ended interview |
| What steps could be taken to improve "no show" rates among the mentally ill who are homeless? | Attendings, residents<br><br>Homeless community members | Self-Report Questionnaire; Focus Group<br><br>Open-ended interview |

**Short-Term Participant Objective #2:** By project month 10, clients evaluated at the clinic will have an increased use of other community services.

| Evaluation question | Participant | Evaluation Method |
|---|---|---|
| How many shelter clients use other community services aside from mental health care? | Clinic coordinator, education coordinator<br><br>Clinic clients | Chart Review<br><br>Open-ended interview |
| How many of those who have not been seen at the clinic use other community services aside from mental health care? | Clinic coordinator, education coordinator<br><br>Homeless Community Members | Chart Review<br><br>Open-ended interview |
| What are the barriers to accessing other community services? | Attendings, residents<br><br>Homeless community members | Self-Report Questionnaire; Focus Group<br><br>Open-ended interview |
| What would better assist those who have mental illness and are homeless in accessing community services? | Attendings, residents<br><br>Homeless community members | Self-Report Questionnaire; Focus Group<br><br>Open-ended interview |

**Short-Term Participant Objective #3:** By project month 10, Duke psychiatric residents will have increased knowledge regarding community resources for the homeless population in Durham, and an awareness of evidence-based interventions proven to enhance psychiatric outcomes.

| Evaluation question | Participant | Evaluation Method |
|---|---|---|
| Have residents increased their knowledge about community resources for the | Residents | Self-Report Questionnaire |

| | | |
|---|---|---|
| homeless population in Durham? | | |
| What are two community resources available for the homeless population in Durham? | Residents | Self-Report Questionnaire |
| Have residents' awareness of evidence-based interventions for the homeless population in Durham increased? | Residents | Self-Report Questionnaire |
| What is one evidence-based intervention proven to enhance psychiatric outcomes amongst the homeless? | Residents | Self-Report Questionnaire |
| Have residents used the information acquired during earlier presentations in clinical practice? | Residents | Self-Report Questionnaire |
| What other information would be most useful to clinicians in caring for those who are homeless? | Residents | Self-Report Questionnaire |

**Long-Term Objective #1:** By project month 18, 50% of the clients evaluated in the clinic, will be in mental health treatment with a long-term provider.

| Evaluation question | Participant | Evaluation Method |
|---|---|---|
| How many clients served by the shelter clinic are in care with a mental health provider? | Clinic coordinator, education coordinator | Chart Review |
| What are the perceived barriers to remaining in long-term mental health care? | Homeless Community Members | Open-ended interview |
| Of those who are currently in long-term mental health care, how many times were they evaluated by the shelter clinic? | Clinic coordinator, education coordinator | Chart Review |
| Of those who are NOT currently in long-term mental health care, how many times were they evaluated by the shelter clinic? | Clinic coordinator, education coordinator | Chart Review |

**Long-Term Objective #2:** By project month 18, fewer clients who had been evaluated at the clinic will use emergency departments for mental health services.

| Evaluation question | Participant | Evaluation Method |
|---|---|---|
| Of the clients served by the shelter clinic, how many times have they used emergency mental health services? | Clinic coordinator, education coordinator | Chart Review |
| Of the clients served by the shelter clinic, how many times have they used emergency medical services? | Clinic coordinator, education coordinator | Chart Review |
| What are the challenges to receiving urgent care through Durham Access? | Homeless Community Members | Open-ended interview |
| Of the clients served by the shelter, how may of those using emergency services more than 3x/year have a long-term mental health care provider? | Clinic coordinator, education coordinator | Chart Review |

**Long-Term Objective #3:** By project month 18, at least 60% of Duke psychiatric residents will report feeling decreased helplessness in interactions with homeless population.

| Evaluation question | Participant | Evaluation Method |
|---|---|---|
| Using Likert scale 1-5 (never to always), rate how often you feel helpless when working with the homeless population? | Residents | Pre/Post Survey |
| Did at least 60% of residents report feeling decreased helplessness in interactions with the homeless population? If not, what would improve this rate? | Education Coordinator | Open-ended Interview |
| What would assist residents most in feeling less helpless when working with the homeless population? | Residents | Pre/Post Survey |
| What further information or experiences | Residents | Pre/Post Survey |

| | | |
|---|---|---|
| would be helpful in increasing feelings of competence in working with homeless population? | | |
| Schwarzer & Jerusalem (rev 2000). Scale of General Perceived Self-Efficacy (38) | Residents | Pre/Post Survey |

## V. IRB Summary

No IRB approval was necessary for this project given that involvement of human subjects was limited to research designed to study, evaluate, or otherwise examine a public benefit or service program and possible changes in or alternatives to this program. Quality assurance investigations do not at this time require IRB approval.

Prior to implementing the evaluation, however, IRB counsel would be sought for clarification regarding need for approval.

## VI. Discussion

Homelessness continues to impose significant barriers to achieving appropriate access to mental health treatment. Even among those who are developing strategies to care for the multi-faceted needs of the homeless population, the challenges to efficiently and effectively monitor outcomes for any program are great. The transience of the population and the often high levels of mistrust for any system of care make continuity extremely difficult. Despite studies which have demonstrated the cost-effectiveness of various intensive approaches towards stabilizing those with chronic mental illness and no home by first offering housing, implementation of such intensive care has been limited (39). Therefore, often the homeless who are mentally ill never make it into the care of a

community-based, enhanced service provider, remaining instead in limbo even after intensive in-patient treatment. Ensuring that mental health clients make the transition from hospital to community mental health care is difficult. Often lengthy follow-up periods, combined with a patient's limited resources make such a transition feel impossible.

Yet the mental health care system itself also makes access at any stage improbable. Current behavioral health safety nets for those without health insurance, such as Local Management Entities in North Carolina, are often not set-up appropriately to address the complex social, economic and health needs of the homeless. Locations of mental health clinics can be inaccessible, often separate from the internal medicine clinics where additional appointments must be scheduled, and next available appointments can be weeks from the time of initial inquiry. In a system with few resources, the choice often is care versus no care. Many choose no care.

In an effort to improve access and referral into the mental health system by providing one more option and meeting the homeless where they exist, Duke University Medical Center psychiatry department together with Lincoln Community Health Center Healthcare for the Homeless Clinic created a mental health component to an already existing shelter-based medical clinic. As this clinic continues to engage this population, providers will be able to obtain more information on how basic elements of convenience of location and timing of appointments influences continuity of care. What occurs when the cost of choosing mental health care is lowered? How will this clinic enable the homeless

population to continue to choose engagement with other community resources? Studies indicate that developing strong personal relationships with those in transition, providing safe surroundings and the possibility of independent housing can assist in treatment engagement and retention (40, 41). What will be the effects of even a brief two-hour mental health clinic once a month?

The program is a small pilot, which begins to explore known weaknesses within the existing mental health system, and to examine the elements that do work to keep an individual within care. Time is limited for both residents and attending physicians, who work as volunteers; permanent funding is not yet available. There is no guarantee that a single additional engagement with a provider will improve the overall prognostic course for any individual, yet shelter-based clinics have been shown to at least increase the likelihood of making an additional appointment with a substance abuse program or community mental health center (22). The plan for this shelter-based mental health clinic has been put into action since January 2009 with the hope of beginning to close those gaps into which the homeless often fall.

The clinic and the corresponding educational program designed to engage residents in a better understanding of mental healthcare for the homeless is also one step in creating an awareness of the prejudice that exists towards those who are homeless and of how to address it. The stated goal of the mental health component to Lincoln Community Health Center's Healthcare for the Homeless Clinic is to improve access and referral to mental health care services among the Durham homeless population. Yet simply being there on

the premises, being a provider willing to engage with those who are homeless may do so much more than simply improve access. Offering a hand brings humanity back. No longer is a homeless individual a problem to be solved, but rather a human being to be helped.

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